

CLAIMS

What is claimed is:

1. A method for enabling communication between a first agent in a
5 first domain and a second agent in a second domain comprising the steps of:
 - a) a coordinator in the first domain registering a send-message service with a service bus; and
 - b) the second agent in the second domain communicating with first agent by employing the service bus, the registered send-message service, and the coordinator
10 in the first domain;
wherein the method solves the interface diversity problem and does not require a central coordinator.
2. The method of claim 1 wherein the step of the second agent in the
15 second domain communicating with first agent by employing the service bus, the registered send-message service, and the coordinator in the first domain includes
 - i) the coordinator providing a client-side interface for the send-message service that can be employed by other agents in different domains to communicate
20 with the agents in the first domain; and
 - ii) the second agent in a second domain communicating with an agent in the first domain by employing the client-side interface for the send-message service of the coordinator.
- 25 3. The method of claim 2 wherein the step of the second agent in a second domain communicating with an agent in the first domain by

employing the client-side interface for the send-message service of the coordinator includes

i) directing a message from the second agent to the coordinator, which serves as a point of presence for agents in the first domain;

5 ii) the coordinator receiving the message and forwarding the message to the intended recipient agent.

4. The method of claim 1 wherein the coordinator is a point-of-presence for communication directed to agents in the first domain by agents
10 external to the first domain.

5. The method of claim 1 wherein the service bus is the E-speak service bus.

15 6. The method of claim 1 wherein the service bus is the HTTP service bus.

7. The method of claim 1 wherein the service bus provides one of dynamic firewall transversal services, access control services, security
20 services, billing services, authentication services, authorization services, and other predefined infrastructure services.

8. The method of claim 1 wherein the coordinator provides one of naming services, resource directory services, and send-message service.
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9. The method of claim 3 wherein the step of directing a message from the second agent includes

invoking a send-message service provided by the service bus;
 wherein the step of the coordinator receiving the message and forwarding the
 message to the intended recipient agent includes
 employing a local naming service to forward the message to the first agent.

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10. The method of claim 9 wherein the step of invoking a send-message
 service provided by the service bus includes specifying a domain name and
 receiver agent name.

10 11. The method of claim 1 wherein the first agent and the second agent
 communicate in a publish and subscribe mode.

12. The method of claim 1 wherein the first domain is a first enterprise
 and the second domain is a second enterprise.

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13. A system for enabling communication between agents in different
 domains comprising:

- a) a service bus for providing infrastructure services;
- b) a coordinator in a first domain having a send-message service that is

20 registered with the service bus;

c) an agent in a second domain; wherein the agent in the second domain sends
 a message directed to an agent in the first domain by employing the send-message
 service of the coordinator;

25 wherein the coordinator provides a point-of-presence gateway for receiving
 messages directed to agents in the first domain and forwarding the message to the
 intended recipient agent.

14. The system of claim 13 wherein the delivery of messages between agents is based on service invocation and the infrastructure services provided by the service bus, and wherein the system does not require a centralized coordinator.

5 15. The system of claim 13 wherein agents communicate messages with other agents across domains by invoking a send-message service provided by a service bus, and wherein the system provides a point-of-presence approach to address the interface diversity problem.

10 16. The system of claim 13 wherein each agent is required to keep only the client-side interface of the coordinator in order to communicate with agents in the first domain.

15 17. The system of claim 13 wherein only a single send-message service of the coordinator need be registered with the service bus to enable agents external to the first domain to communicate with every agent in the first domain.

18. A method for enabling inter-enterprise agent communication comprising the steps of:

- 20 a) grouping agents into a first group in a first domain;
- b) assigning a coordinator to the agents in the first group;
- c) registering a send-message service of the coordinator with a service bus;
- d) the coordinator receiving messages from a second domain; wherein the messages are directed to an agent in the first group; and
- 25 e) the coordinator forwarding the messages to an intended recipient agent;
- wherein the service bus provides inter-enterprise communication services between the first domain and the second domain.

19. The method of claim 18 wherein the first domain is disposed in a first enterprise and the second domain is disposed in a second enterprise.
- 5 20. The method of claim 18 wherein the service bus provides one of dynamic firewall transversal services, access control services, security services, billing services, authentication services, authorization services, and other predefined infrastructure services.